U.S.Application No.: 10/635,486

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in

the application:

Listing of Claims:

1. (currently amended) A photothermographic material comprising a

preformed photosensitive silver halide, a reducing agent for reducing silver

ions, a binder and a non-photosensitive organic silver salt prepared in the

presence of the preformed photosensitive silver halide, wherein the

photosensitive silver halide has a silver iodide content ranging from 40 mol%

to 100 mol%, and has a particle size ranging from 5 nm to 80 nm, and

wherein the resulting non-photosensitive organic silver salt includes the

preformed is prepared in the presence of the photosensitive silver halide

which has been preformed, such that the non-photosensitive organic silver-

salt includes the photosensitive silver halide.

2. (original) The photothermographic material according to claim 1,

wherein the non-photosensitive organic silver salt including the

photosensitive silver halide is produced by adding an alkali metal salt to an

organic acid to prepare an alkali metal soap of at least a part of the organic

acid, mixing the prepared alkali metal soap with the photosensitive silver

halide, and thereafter admixing therewith a water-soluble silver salt.

2

Attorney Docket No.: FSF-031421

Amendment under 37 C.F.R. § 1.116 U.S.Application No.: 10/635,486

- 3. (original) The photothermographic material according to claim 1, wherein the non-photosensitive organic silver salt has a silver behenate content ranging from 40 mol% to 70 mol%.
- 4. (original) The photothermographic material according to claim 2, wherein the non-photosensitive organic silver salt has a silver behenate content ranging from 40 mol% to 70 mol%.
- 5. (original) The photothermographic material according to claim 1, wherein the binder is polyvinyl butyral.
- 6. (original) The photothermographic material according to claim 1, wherein methyl ethyl ketone is used as a solvent for a coating solution, and a residual amount of the methyl ethyl ketone ranges from 0.1 mg/m² to 150 mg/m².
- 7. (original) The photothermographic material according to claim 1, wherein the photosensitive silver halide has a particle size ranging from 5 nm to 50 nm.
- 8. (original) The photothermographic material according to claim 1, further comprising a compound selected from compounds of the following types 1 to 5:

(Type 1)

a compound that can be one-electron oxidized to produce a

U.S.Application No.: 10/635,486

one-electron oxidation product, which releases two or more electrons through a bond cleaving reaction;

(Type 2)

a compound that has two or more adsorptive groups to the silver halide in the same molecular structure and can be one-electron oxidized to produce a one-electron oxidation product which further releases one electron through a bond cleaving reaction;

(Type 3)

a compound that can be one-electron oxidized to produce a one-electron oxidation product, which releases additional one or more electrons after a bond forming process;

(Type 4)

a compound that can be one-electron oxidized to produce a one-electron oxidation product, which releases additional one or more electrons after an intra-molecular ring opening reaction; and (Type 5)

a compound represented by X-Y, in which X represents a reducing group and Y represents a leaving group, wherein the reducing group X can be one-electron oxidized to produce a one-electron oxidation product, which leaves Y to produce X radical through an X-Y bond cleaving reaction, followed by releasing one more electrons from the X radical.

9. (original) The photothermographic material according to claim 2, further comprising a compound selected from compounds of the following types 1 to 5:

Attorney Docket No.: FSF-031421

Amendment under 37 C.F.R. § 1.116 U.S.Application No.: 10/635,486

(Type 1)

a compound that can be one-electron oxidized to produce a one-electron oxidation product, which releases two or more electrons through a bond cleaving reaction;

(Type 2)

a compound that has two or more adsorptive groups to the silver halide in the same molecular structure and can be one-electron oxidized to produce a one-electron oxidation product which further releases one electron through a bond cleaving reaction;

(Type 3)

a compound that can be one-electron oxidized to produce a one-electron oxidation product, which releases additional one or more electrons after a bond forming process;

(Type 4)

a compound that can be one-electron oxidized to produce a one-electron oxidation product, which releases additional one or more electrons after an intra-molecular ring opening reaction; and (Type 5)

a compound represented by X-Y, in which X represents a reducing group and Y represents a leaving group, wherein the reducing group X can be one-electron oxidized to produce a one-electron oxidation product, which leaves Y to produce X radical through an X-Y bond cleaving reaction, followed by releasing one more electrons from the X radical.

10. (original) The photothermographic material according to claim 1,

U.S.Application No.: 10/635,486

further comprising a compound represented by formula (H):

Formula (H)

$$Q - (Y)n - C(Z_1)(Z_2)X$$

wherein Q represents an alkyl group, an aryl group or a heterocyclic group; Y represents a bivalent linking group; n represents 0 or 1; Z_1 and Z_2 represent a halogen atom; and X represents a hydrogen atom or an electron attractive group.

11. (previously presented) The photothermographic material according to claim 2, further containing a compound represented by formula (H):

Formula (H)

$$Q - (Y)n - C(Z_1)(Z_2)X$$

wherein Q represents an alkyl group, an aryl group or a heterocyclic group; Y represents a bivalent linking group; n represents 0 or 1; Z_1 and Z_2 represent a halogen atom; and X represents a hydrogen atom or an electron attractive group.

- 12. (original) The photothermographic material according to claim 1, wherein the reducing agent is a bisphenol-type reducing agent.
- 13. (original) The photothermographic material according to claim 1, further comprising a compound represented by formula (J):

Formula (J)

Amendment under 37 C.F.R. § 1.116 U.S.Application No.: 10/635,486

wherein R^{21} to R^{23} each independently represent an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an amino group or a heterocyclic group.

14. (original) The photothermographic material according to claim 2, further comprising a compound represented by formula (J):

Formula (J)

$$\begin{array}{c} R^{22} \\ | \\ R^{21} - P - R^{23} \\ || \\ O \end{array}$$

wherein R^{21} to R^{23} each independently represent an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an amino group or a heterocyclic group.

- 15. (original) The photothermographic material according to claim 1, further comprising a development accelerator.
- 16. (original) The photothermographic material according to claim 2, further comprising a development accelerator.
- 17. (original) The photothermographic material according to claim 15,

U.S.Application No.: 10/635,486

wherein the development accelerator is a hydrazine-based or naphthol-based compound.

18. (original) The photothermographic material according to claim 1, wherein the photosensitive silver halide has a silver iodide content ranging from 80 mol% to 100 mol%.

- 19. (original) The photothermographic material according to claim 1, wherein the photosensitive silver halide has a silver iodide content ranging from 85 mol% to 100 mol%.
- 20. (original) The photothermographic material according to claim 1, wherein the photosensitive silver halide has a silver iodide content ranging from 90 mol% to 100 mol%.